

Physicists produce exciting electron phenomena

Three members of the high energy physics group at U of T were among the team that earlier this month produced the world's most powerful man-made stream of electrons at the Fermi National Accelerator Laboratory near Batavia, Ill.

They intend now to use the machine to investigate experimentally the exciting new phenomena reported independently this week from Stanford Linear Accelerator Center in California, and from Brookhaven National

Laboratory in Long Island, where particles with exceptional characteristics were produced by making electrons collide head-on with positrons.

The scientists are Profs. James Prentice and G.J. Luste and research associate Dr. Phil Davis. The group have also employed very sophisticated equipment in Toronto to analyse photographs they took, using the giant atom smasher of the Argonne National Laboratory in Chicago. The Batavia machine is realizing 250 billion electron volt

energies at present, and is expected to reach 300 billion shortly, compared with the Argonne machine's 10 billion volt potential.

Three other U of T professors, T.J. O'Donnell, R.H. Graham and J.W. Moffat, at the same time are actively engaged in trying to understand the latest experimental results from a theoretical point of view. Prof. O'Donnell, who has a cross-appointment with Scarborough College, discusses the latest development in an article on Page 4.



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Asking early start on parking garages

After six months of study with a five-man academic and administration group, Vice-President Jill Conway has recommended to the Internal Affairs Committee of Governing Council that the University proceed at once with the first two of three parking garages on the St. George campus.

The structures would be built consecutively rather than concurrently so that their impact on parking patterns could be monitored and assessed.

The administration's recommendations

Prof. Conway submitted these proposals:

The University could first build a 300-car ramp-type garage at the eastern end of the Medical Sciences building on the site of the old power plant. The building would be landscaped so that it would not intrude on the Queen's Park environment. Spreading the capital cost across all parking permit holders would mean an increase of about 17 per cent. in the permit rate and would involve raising the transient charge by 20 per cent.

Next a 300-car parking ramp garage could be built on the site of a parking lot now in use at Spadina Ave. and Bancroft St., beside the Graduate Students' Union. This would require an increase of about 19 per cent. in rates charged parking permit holders.

Underground parking — the third stage

A 600-car underground parking facility — the third stage — might be erected on the present parking lot on the east side of St. George St. about opposite Sussex Ave. Sufficient information has not yet been obtained to determine the costs of such a below-grade facility. "By the time phase 3 is reached," the report says, "it would be possible to assess whether the requirements of new construction such as the Athletics Complex necessitated the provision of additional spaces or whether it would be possible to bring about a further reduction in other surface parking areas."

Prof. Conway pointed out that there would be "no significant change in the number of spaces available on campus during stage 1. It is therefore recommended that implementation begin at once and that discussions with the T.T.C. about improved transit to and from the campus and nearest subway stations be developed concurrently with planning for stage 2."

Based upon the overall parking policy

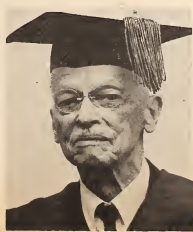
The recommendations have been based upon the guidelines for parking policy approved by Governing Council last March, at which time the administration was asked for detailed proposals after consultation with experts in traffic management and consideration of the financial and technical aspects of the policy.

Members of the group which worked with Prof. Conway on the plan were: Prof. I.R. Dalton, Electrical Engineering; Prof. William G. Dean, Geography; Prof. J.G.C. Templeton, Industrial Engineering; Frank Hastie, Physical Plant; and Alex Malcolm, Administrative Services.

Prize to honour Dr C B Farrar

At the official opening on Wednesday of the Clarke Institute's exhibit, "100 years of psychiatry," commemorating the late Dr. C.B. Farrar (see Exhibitions), the Institute announced a \$1,000 research award in Dr. Farrar's honour. The prize will be awarded bi-annually for the best paper presented on psychiatric history.

Dr. Farrar was professor of psychiatry at the U of T from 1926 until his death at age 95 in 1970, and was editor of the American Journal of Psychiatry for 34 years.



University College Principal A.C.H. Hallett "robes" Dr. Eva Waddell Mader Macdonald immediately after her installation as the 25th Chancellor at

Convocation on Wednesday evening. Convocation was packed for the occasion, at which honorary and undergraduate degrees were conferred.

The University's 25th Chancellor installed

Wednesday, Nov. 27, 1974.
An historic day in the life of the University.

So said President John R. Evans at the Convocation that evening. That was the occasion when Dr. Eva Waddell Mader Macdonald was installed as the 25th Chancellor of the University of Toronto and King's College, as it was known from 1827 to 1850. The oath of office was administered by Mrs. Vivian McDonough, president of the University of Toronto Alumni Association. (The Chancellor is elected by alumni.)

The honorary degree of Doctor of Laws was conferred upon Professor Donald G. Creighton, now retired after half a century as a scholar of history at the University, and Winona Grace MacInnis, former M.P., daughter of the late

James S. Woodsworth, founder of the C.C.F., for whom U of T's newest college has been named.

Lieutenant-Governor Pauline McGibbon, first woman Chancellor and the immediate predecessor of Dr. Macdonald in the office, was present to wish her successor well.

Graduates of Woodsworth College, who had begun their student days as Extension students and

who now have this college as their own, received undergraduate degrees, as did full-time students in Arts and Science and other faculties.

The presidents of York, Queen's, Windsor, and Trent universities were in the academic procession as an expression of the cordial relationships prevailing between U of T and its sister universities.

SEE OTHER PAGES FOR:

Pictures of Convocation

and a Woodsworth Week event—PAGE 3

Athletic events this weekend—PAGE 4

COMING EVENTS

NOVEMBER

30 SATURDAY

Lecture: Astronomy - "The Environment on Other Worlds". Dr. Peter M. Millman, Head of Upper Atmosphere Research, Research Council of Canada. Convocation Hall, 8.15 p.m. (Royal Canadian Institute)

Musical - University of Toronto Symphony Orchestra, conductor Victor Feldbrill. MacMillan Theatre, Edward Johnson Building, 8.30 p.m. Free reserved tickets available from box office. Limit 2 per person. Enclose stamped addressed envelope (Music)

DECEMBER

1 SUNDAY

Musical - Christmas Concert by Hart House Chorus, directed by Denise Narcisse-Mair. Great Hall, Hart House, 8.30 p.m. Free

Musical - University of Toronto Concert Band, conductor, Ezra Schabas. MacMillan Theatre, Edward Johnson Building, 3 p.m. No tickets, no charge (Music)

Musical - Classical Brass - works by Bach, Schenck, Beethoven and Joplin, performed by a brass quintet. Meeting Place, Scarborough College, 3.30 p.m. Free

2 MONDAY

Musical - Medicine - "LH and OGC Receptors of Testis and Ovary". Dr. Maria L. Dufau, National Institute of Health, and a Human Development, Bethesda, Md. 419 Best Institute, 4 p.m. (Banting and Best)

Exhibition: on slides of David Jones (artist-poet 1895-1974) of his paintings, drawings, lettering and books with recorded commentary by him. Lent by British Council, Ottawa. 106 U.C. 410 p.m. (Graduate English and English, U.C.)

3 TUESDAY

Lecture: Medicine - "Neural Correlates of Reason and Liberty". Dr. R. J. Grimm, Neurological Sciences Institute, Good Samaritan Hospital, Portland, Ore. 2172 Medical Sciences Building, 5 p.m. (Neuroscience Institute and Toronto Neurological Society)

Colloquium: Mathematics - "Mathematics, Statistical Theory and Computing". Prof. John W. Tukey, Princeton University and Bell Laboratories, 2117 Sidney Smith Hall, 4 p.m. (coffee served at 3.30 SS 5017-B) (Mathematics)

Colloquium: Chemistry - "Nuclear Magnetic Resonance Studies of Metal Ion Complexes with Nucleotides and Enzymes". Prof. G. Kotowicz, University of Alberta, 428 Alkali Chemical Laboratories, 4 p.m. (Chemistry)

Lecture: "Pablo-Neruda a la generalidad del canto". Prof. Alain Sicaud, Director, Centre for Latin American Research, University of Poitiers. Upper Library, Massey College, 4.10 p.m. (Latin American Studies Committee, ISP)

Seminar: Dentistry - "Rhizotomy Triggered Herpes Simplex Virus Infections in Man". Dr. R. J. Grimm, Portland, Ore. 2394 Medical Sciences Building, 12 noon-1 p.m. (Dentistry)

Musical - Taylor-Remy. Tony: Janice Taylor, contralto; Ronald Taylor, flute; Susana Remy, harp. Concert Hall, 273 Bloor St. W., 12.15 to 12.45 p.m. (Royal Conservatory of Music)

4 WEDNESDAY

Lecture: Mathematics - "Mathematics and the Picturing of Data". Prof. John W. Tukey, 1070 Sidney Smith Hall, 1 p.m. (Mathematics)

Lecture: Medicine - "Comparative Physiology of the Lung". Dr. David Leith, Harvard University, 4279 Medical Sciences Building, 4 p.m. (Respirology Group)

Lecture: Dentistry - "The Colagens of the Oral Cavity". Dr. D. Carmichael, R.S. McLaughlin Visiting Scientist, 106 Dentistry Building, 1 to 2 p.m. (Dentistry)

Meeting - University Arts Women's Club annual Christmas party. Dr. Peggi Sampson, Faculty of Fine Arts, York University, with an ensemble of other music students, will perform. At the home of Mrs. J.R. Evans, 93 Highland Ave. 8 p.m.

Drama - Bloomers: plays by Eliot, Strachey, Mansfield and Woolf. Glen Morris Studio Theatre, U of T, 8.30 p.m. Dec. 4, 5, 6, and 7. Free. For further details and reservations call 928-8705 (Drama Centre)

Radio - "God and His Creation - View of Islamic Philosophy". CRT-FM (91.1) 10 a.m. and 7.30 p.m. (Islamic Studies and Open College)

Films: Claire Hopen will show anthropological films of Africa. S-309 Scarborough College, 12 noon.

Christmas Tree - Annual Christmas program of music, carols and stories. Great Hall, Hart House, 8 p.m. Free for members.

5 THURSDAY

Lecture: Medieval - "The Late Medieval Definition of Literature". Prof. J.B. Allen, Marquette University, 404 Carr Hall, 4.15 p.m. (Medieval Studies and SGS)

Colloquium: Physics - "Electron-Photon Experiments with a Superconducting Linear Accelerator". Prof. Allan Schweitman, High Energy Physics Lab., Stanford University, 102 McLennan Physical Laboratories, 4.10 to 5.15 p.m. (Physics)

Seminar: Russia - "Russian Frontier Expansion and the European State System in the 18th Century". Prof. Harvey L. Dyck, Upper Library, Massey College, 8 p.m. (History)

Seminar: Medicine - "The Biogenesis of the Acetylcholine Receptor during Myogenesis". Dr. John Paul Mele, Institut Pasteur, Paris, Canada, 417 Best Institute, 12.30 p.m. (Banting and Best)

Seminar: Environmental Studies - "The World Health Organization: Environmental Programs in Europe". Dr. P.H. Jones, U of T, 211 Kenthall Building, 4 p.m. (IES)

Film: Kenneth Clark's *The Romantic Rebellion*. "Theodore Gercault". Hart House Art Gallery, 12.15, 1.15 and 7.30 p.m.

Musical - with Stephen Chenette, trumpet, assisted by Susan Chenette, piano; Audrey King, cello; Nancy Hermiston, soprano; Fujiko Imajishi, Kathryn Wunder, violins; Maurice Pelletier, viola; Jane McAdam, double bass and George Brough, harpsichord. Walter Hall, Edward Johnson Building, 8.30 p.m. Tickets \$4, students \$2 with I.D. Cheques

payable to U of T, enclose stamped, addressed envelope (Music)

6 FRIDAY

Lecture: Dentistry - "Bacterial Specificity in the Etiology of Periodontal Diseases". Dr. S.S. Socransky, Forsyth Dental Center, Boston, 308 Dental Building, 10 a.m. - 12 noon (Dentistry)

Seminar: Medieval - "The Science of Exemplar: A Possible Medieval Structuralism". Prof. J.B. Allen, Upper Library, Massey College, 4.15 p.m. (Medieval Studies)

Musical - Intermediate Orchestra, directed by Jack Montague. Concert Hall, 273 Bloor St. West, 8.15 p.m. (Royal Conservatory of Music)

7 SATURDAY

Lecture: Machines - "Men, Women and Machines". Dr. E. Llewellyn-Thomas, U of T, Convocation Hall, 8.15 p.m. (Royal Canadian Institute)

Musical - New Music Concerts, featuring Pierrette Le Page, Bruce Mather and Robert Aitken, and others, and including four world premiers. Walter Hall, Edward Johnson Building, 8.30 p.m. Reserve by calling 967-5257.

8 SUNDAY

Service - Annual Service of Lessons and Carols for Advent. Trinity College Chapel, 4.30 p.m.

Musical - University of Toronto Concert Choir, conductor, Charles W. Hefferman. Walter Hall, Edward Johnson Building, 3 p.m. No tickets, no charge (Music)

Musical - Pierre Auger, concert guitarist. Meeting Place, Scarborough College, 3.30 p.m. Free

STAFF NOTES

Scarborough College

PROF. D.E. CAMPBELL will be spending the next academic year, while on research leave, in the Department of Decision Sciences, Graduate School of Business, Stanford University and the following summer at Cambridge. Prof. Campbell's research is being supported by a Canada Council Research Fellowship.

PROF. JOHN KENYON was elected vice-president of the Canadian Society of Church History at the Learned Societies meetings in June.

Erindale College

PROF. LUBA ELEN attended the joint meeting of the Conference on Medieval Studies and the Medieval Academy of American at Kalamazoo, Mich., May 8-11, where she gave a paper entitled "An Italian Cycle of Acts Illustrations."

PROF. F.D. TALL attended the International Congress of Mathematicians in Vancouver in August and on route gave talks at the Universities of Wisconsin and Colorado, and at a Topology conference at the University of Wyoming. He and his doctoral student, W.A.R. WEISS, have both invited to address a special session on Topology at the annual meeting of the American Mathematical Society in January.

PROF. R. VANDRUBURG has received a grant from the Canada Council for a continuing study of attitudes towards environmental exploitation at Cape Croker. She spent the summer on an Ojibwa reserve on the Bruce Peninsula, interviewing people over 65 in the community. Prof. Vandruburg reports that "the probably the highlight of the field work, which took place at Cape Croker, was a six mile walk around the central limestone bluff that is the outstanding geological feature of the reserve. An eighty-one year old resident of the community took me on this walk, and we became instant local celebrities for our achievement, as few of the younger band

members have been all the way around the Bluffs. The entire reserve is visible from the end of the bluff, and I was able to get excellent pictures showing land use, residence patterns, and so on." The grant will cover research for another fifteen months, so Prof. Vandruburg is looking forward to the fall and winter fishing and hunting seasons, as well as another summer on the reserve.

PROF. O. HEGYI participated in the Fifth International Congress of Hispanists, held at Bordeaux, France, Sept. 2-8. During the Congress he read a paper in the Section for Linguistics on "Algunos aspectos del sistema de escritura aljamiado-español." (Some aspects of the Aljamiado-Spanish writing system). Prof. Hegyi has been awarded a publication grant by the Humanities Research Council of Canada to assist the publication of "La leyenda de Tamim Adad y otros textos." (The legend of Tamim Adad and other aljamiado texts). It is a linguistic study of a sixteenth century manuscript in the Biblioteca Nacional de Madrid.

PROF. A.J. POE attended seminars and conferences during the summer at the following: the Hinner Symposium on Metal Carbonyls held at Ettal, Bavaria, July 21-26 he presented a paper entitled "Substituent Effects on the Kinetic Reactions of Alkynes with Cobalt Carbonyls"; on Aug. 19-24 the 16th International Conference on Co-ordination Chemistry was held in Dublin and Prof. Poe presented a paper entitled "Substituent Effects on the Kinetic Strengths of Mn-Mn Bonds" prepared in conjunction with R.A. Jackson. At the International Conference on Stability and Reactivity of Metal Complexes held Aug. 25-30 in Bressanone, Italy, Prof. Poe presented a paper entitled "Bimolecular Reactions of Metal Carbonyls." He attended the International Symposium on "Metals in Organic Chemistry" held Aug. 31 - Sept. 6 in Venice.

PROF. L.L. WILLIAMS, on sabbatical leave at the Rubber and Plastics Research

Association in England, attended the Institute of Physics Conference on the Inter-relationship of Structure, Properties and Applications of Polymers held in Nottingham.

PROF. E.J. DAVENPORT gave two invited papers: "Properties and Computations of Transmission Zeros of Linear Multivariable Systems," "Perfect Control in Linear Systems" at the Pole-Zero Conference on Multivariable Systems held in Cambridge University, England, Sept. 23-26. He also organized and chaired a session on Large Scale Systems at the 12th Allerton Conference on Circuits and Systems held at the University of Illinois, Urbana-Champaign, Oct. 2-4; in this same conference he presented an invited paper "The Stabilizability of Large Interconnected Systems." At the 1974 Joint Automatic Control Conference held at the University of Texas, Austin, June 18-21, he was discussor of a number of papers.

PROF. J.W. ADAMOWSKI attended the conference "William Faulkner and Yoknapatawpha County," held at the University of Mississippi (Oxford) from Aug. 1-5.

PROF. J.W. ABRAMS presented a paper "The Canons of Scientific Acceptability" at the International Congress in Commemoration of the 700th Anniversary of the Death of Thomas Aquinas in Naples, April 24. He attended by invitation the Symposium on Science in its Relation to War at the Royal Society of London in March. Prof. Abrams presented a paper "An Episode in the History of Operational Research: The Air Anti-Boat Campaign (1942-43)" at the annual meeting of the Canadian Society for the History and Philosophy of Science in Toronto, in June. He attended the Congress of the International Union of the History and Philosophy of Science in Tokyo and Kyoto in August and presented a paper on "The Origins of Operational Research" at the Congress. While in Japan he attended and participated in the Symposium on the Transfer

of Technology to Non-Initiating Countries: sponsored by the International Committee for Co-Operation in the History of Technology (ICOHTECH) and attended a meeting of their executive of which he is a member.

Dentistry

DR. B.J. SESSLE and DR. L.F. GREENWOOD attended the 6th International Conference on Oral Biology in Toronto from June 3 to 5 and presented an invited paper entitled "Effects of Trigeminal Tractotomy and of Carbamazepine on Single Trigeminal Sensory Neurons in Cats." Dr. Sessle attended the ACFD/AFDC 8th Biennial Research and Education Conference in Digby Pines, N.S., from June 17 to 19 and presented an invited paper entitled "The Effect of Aging on Nerve and Nervous Pathways of the Oro-Facial Complex." Dr. Sessle was co-chairman and organizer of an international symposium "Mastication and Swallowing: Biological and Clinical Correlates" in Vancouver from Aug. 5 to 8. The symposium was held at the University of British Columbia campus and was jointly sponsored by the Ministry of Health of British Columbia and the Medical research Council. Dr. L.F. Greenwood also attended this symposium and with Dr. Sessle, presented a paper entitled "Pain, Brain Stem Mechanisms and Motor Functions." Drs. Sessle and Greenwood are co-investigators of a research project "Clinical Neurophysiological Study of Acupuncture" that has been funded by the Ontario Ministry of Health. Two members of the Faculty of Medicine, Dr. R.V. TASKER (Department of Surgery) and DR. L.W. ORGAN (Department of Physiology) are co-investigators of this study which is one of the first three acupuncture research grants ever awarded by the Ministry to Ontario universities and teaching hospitals. The project will be carried out at the Greenwood General Hospital and will study the effects of acupuncture on responses to dental and cutaneous stimuli.

'Bishop in Honan' — a book tells of White and the ROM



With the purple robes and ring of his office, Bishop White wore the Decoration of the Excellent Cross, presented to him by China for his services to that country.

*The Life lives on,
The Plan takes shape,
The Father's House
Awaits the Soul's
Long Home*

So wrote Dr. William C. White on his last Christmas card, before his death in 1960.

Dr. White, former Bishop in Honan, lives on through the world famous collections of Chinese treasures which he presented to the Royal Ontario Museum during the 1920s and 1930s, and now also through a book about his life, just published by University of Toronto Press.

Bishop in Honan: mission and museum in the life of William C. White, is by Lewis C. Walmsley, also a missionary in China, a friend of White's, and, from 1948

to 1963, an associate professor of Chinese studies at U of T.

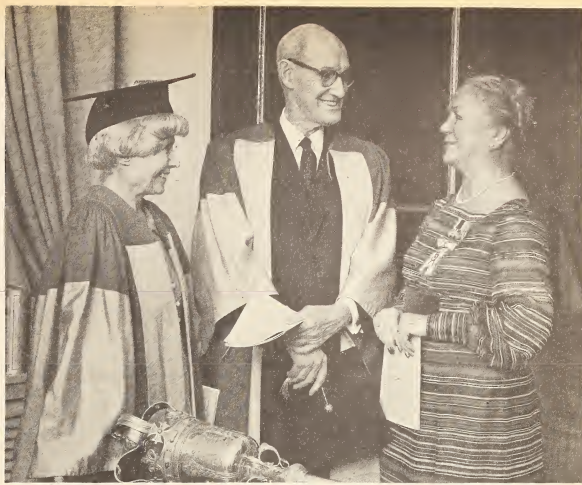
Collecting Chinese archaeology was the second career in the life of William White. A man of great religious sincerity, he wrote in his diary at the age of 23: "From now is going to be a new era in my life. Henceforth I am dead to the world, dead to human love if it comes in the slightest between Christ and me." A year later he sailed to China as a missionary — some years before the great flood of missionaries which followed the Boxer Rebellion.

Using excerpts from letters and from his diary, the book details White's years in China, where he adopted the Chinese dress, language and local customs, worked with lepers, organized flood relief and dealt with bandits, as well as raising a family. In 1909, at the age of 36, he was consecrated Bishop in Honan — and became one of the youngest bishops in the Church of England.

While collected Chinese artifacts that would enable the average Canadian to gain a knowledge of the life of the Chinese people and to appreciate their remarkable civilization. In addition to the furniture, bronzes and paintings which he collected for the ROM, he also brought to Toronto the collection of books which forms the basis of the U of T's Chinese Library (see story on this page).

Bishop White returned to Toronto in 1934 to become Keeper of the ROM's Far Eastern Galleries, and in the same year he founded the School of Chinese Studies at U of T.

The book on Bishop White's life produced by the U of T Press is beautifully designed and printed, and includes finely reproduced photographs of some of the treasures collected by the bishop and now in the Bishop White Gallery at the ROM. A list of publications by White and an index make the book of value to scholars, but this is also a significant book for anyone interested in Chinese history during the early decades of this century.



Honorary graduates Grace MacInnis and Donald Creighton with Lieutenant-Governor Pauline McGibbon



During Woodsworth Week at our newest college, Mrs. Grace MacInnis unveiled a bust of her father, the late James S. Woodsworth, and a plaque for the college. Here she is seen uncovering the plaque, with Principal Arthur Kruger at the right. At the same function Mrs. Audrey Hayes, president of Woodsworth College Alumni Association, presented to Mrs. MacInnis the only bound copy of "James Woodsworth — the Man and the College", given by Prof. Desmond Morton shortly after the formation of the college.

East Asian Library finds home in Robarts

The University's collection of Chinese and Japanese books, journals and microfilm — among the best in North America — has been moved from the Textbook Store to the eighth floor of the Robarts Library. Growing at a rate of nearly 4,000 items a year, the collection had long since outgrown its former home, said the chief librarian of the East Asian Library, Mrs. Anna U.

Subjects covered by the books, many of which are hand-copied, range from history, philosophy, and literature to an ancient book of rules of Chinese games. Prizes of the Chinese section is the "Mu collection" of volumes dating from the Ming dynasty (1368-1644) or earlier. Collected

about the turn of the century in Peking by Mu Hsueh Huan, the books were brought to Toronto in 1935 by the Right Rev. William C. White, former Anglican Bishop of Honan.

Prof. W.A.C.H. Dobson, when chairman of the Department of East Asian Studies, obtained more books for the collection in 1953 with a grant from the Carnegie Corporation. Under his direction the library grew into a "modern workable research collection" and formally became the East Asian Library with its own librarian in 1963.

The foundation for the Japanese collection was laid in 1961, with the aid of a Canada Council grant to Dr. W. Simon, professor

emeritus at the University of London, and visiting professor in the Department of East Asian Studies. The collection grew strongly throughout the 60s, helped by a grant from the Donner Canadian Foundation and a donation of books from the Japanese government. The particular strength of the present collection, says Mrs. U, is in Japanese literature.

Books from this library are available to staff and students of the University under the normal loan regulations. Meanwhile, final sorting and arranging of the 120,000 volumes continues among the appropriately bright red furnishings of Room 8049, Robarts Library.

Third world and its future

Some basic changes in attitude and foreign policy will have to be made by Canada and other western governments, if they are really concerned about the future of third world countries. At the same time many of these countries will have to undergo revolutions to rid themselves of corrupt governments, some of whose ministers are using foreign aid to buy flashy cars, and pad their bank accounts.

That observation was made earlier this week by Prof. Frederick Case, organizer of tomorrow's one-day symposium on the third world and its future, to be held at New College starting at 9:30 a.m.

"The lack of sincerity among some western countries is glaring," said Prof. Case, who added that foreign aid is often used by western nations to maintain corrupt governments among third world countries, so they can be dominated.

He is particularly critical of the arrogant attitudes that western nations currently hold. "Even within western countries problems of black people and other minority racial groups are ignored unless they also affect the white middle

class. Heroin was a serious problem in the black ghettos since the turn of the century," he noted, "but it wasn't until it affected the white segment of society that it suddenly became a national problem."

Problems of food shortages and overpopulation can be greatly alleviated in the third world, Prof. Case says, if western nations are willing to help develop currently useless agricultural land, some of which has great potential.

"Oil companies are willing to spend millions of dollars on exploration but when it comes to digging 200 feet to tap water desperately needed for irrigation, funds are unavailable."

It is essential that third world countries rule themselves and that foreign governments, like Canada's, help out only when specifically requested to do so, according to Prof. Case.

"But right now Canada is a colonial power in its own right, having economic control of the Caribbean islands. Here foreign control is so dominant that even taxi cab services are frequently foreign owned."

U of T wins two prizes at media festival

Two U of T productions have won prizes at the Canadian Instructional Media Festival, an annual competition for institutionally produced instructional programs from across Canada.

"Welcome to the Faculty of Library Science", produced by the Faculty of Library Science received an Award of Merit in the automated slide-tape category. The seven minute program for three screens traces the history of library science in Ontario since

1928, ending with information on the present facilities of the Faculty housed in the Robarts Library complex.

A second program, "Going to Canada: In the Backwoods" won in the videotape category. Based on the diaries of Anne Leveridge and contemporary pictorial material, it tells of the hardships and triumphs of a family settling in eastern Canada in the late 19th century. The program, one of a series of 13 entitled "Victorians", was produced by the U of T Media Centre with Prof. Alan

Thomas of the Department of English. This is the second program from this series to win a prize. Last year, at the same festival, "The Poaching Life" received an award. The series is currently being televised on OECA-TV (Channel 19 in the Toronto area).

Inquiries about "Welcome to the Faculty of Library Science" may be addressed to Paul Hope (7168). "In the Backwoods" can be seen by calling the Program and Library Services Section of the Media Centre (6560).

High energy physics moves fast

Dr. P.J. O'Donnell, who contributes the following article, is professor of physics both at the St. George and Scarborough campuses. "Events are happening so fast in the field of high energy physics," he says, "that the article I wrote on Friday last was already old history the following Monday, when the Stanford group of high energy physicists announced their further discovery of an even more massive particle, equivalent to 3.7 billion electron volts. These recent discoveries imply a real change in our understanding of the structure of matter".

About two weeks ago it was announced that a new sub atomic particle named Psi had been discovered and papers describing the experiments will appear in the December 2 issue of the Physical Review Letters. The new particle, with mass equivalent to just over three billion electron volts, was discovered independently by two groups of physicists. One group at the Stanford Linear Accelerator Center (SLAC) in California, and consisting of Prof. B. Richter and 34 other physicists, found that particle while doing experiments

on electron-positron annihilation at the SLAC electron-positron storage ring facility (SPEAR).

The other group which reported the discovery of this new particle was that of Sam Ting and 13 others at the Brookhaven National Laboratory in Long Island, New York. Ting's group found 500 events corresponding to a mass of just over three billion electron volts and very few outside this region. They christened it the J particle (apparently this is similar to a Chinese script for Ting).

Normally particles are found fairly frequently in high energy physics - there are about 200 or so listed in the little blue book which most particle physicists carry in their hip pockets. So why all the fuss about this one? The reason is that this one is fundamentally different from most of the others. Among particles of its type it is about twice as heavy as existing known ones but, more important, it is inhibited from decaying into any of the many existing lighter particles. It will also have a significantly longer life-time.

This could mean the discovery of a new quantum number or selection rule, just as in the discovery of "strangeness" about twenty years ago. This new quantum number (called "charm") has been hoped for by many theorists over the past few years since some of the most elegant of recent theories seem to require such a selection rule. Another possibility is that it could be the long awaited W boson - a particle which has been postulated for about 20 years to mediate the weak interactions of sub-atomic particles. If this is the case, however, it would seem to negate the recent advances in the unification of the weak and electromagnetic interactions.

Since all that is known about this particle at this time from experiments is that it exists, it is clear that a great deal of emphasis, both experimental and theoretical, will be placed on obtaining further information about it as soon as possible for it does represent a new phenomenon in our attempts to understand the basic laws of nature.

Research News

Nuffield Foundation travel grants

Nuffield Foundation travel grants are available for established scholars who wish to undertake research which can only be carried out in the United Kingdom. The grants provide air fare and assistance with living expenses. Preference is given to Canadian citizens over 35. Persons who have held this award previously are not eligible. Completed applications must reach Ottawa by Jan. 1. Forms are available from A.U.C.C., 151 Slater St., Ottawa, Ontario, K1P 5N1.

December Deadlines

Anyone wishing to submit an application to one of the following agencies should be sure to submit as soon as possible to avoid delays due to Christmas holidays: Addition Research Foundation; Environment Canada, atmospheric and forestry

programs; Department of Manpower and Immigration; and Nuffield Foundation. Applications to these agencies should reach ORA no later than Friday Dec. 6.

Central Mortgage and Housing Corporation

There has been a major change in the policy of CMHC regarding research projects. All research must now serve the goals and objectives of programs under the National Housing Act. Requests for funds should be directed to the director, research co-ordinating division, in the form of a three-page letter outlining the intended research, explaining what is to be done, why the applicant wishes to undertake the research, how the research will be carried out, what the expected results might be, and a rough indication of the budget. This outline should be forwarded, in

two copies with the necessary signatures, and an application attachment (form ORA 5) to ORA.

Imperial Oil Ltd.

Research grants are available from Imperial Oil Ltd. for faculty members wishing to undertake specific projects in physical sciences, engineering, environmental and social sciences. The grants range from \$2,000 to \$5,000 and are made for one year but may be renewed. Application forms are available from ORA. Completed forms should be returned to ORA by Jan. 31 in order to reach Imperial Oil by the deadline. Call 928-2874 for forms or additional information.

Accommodation

Annex home for rent for six months, available Dec. 18; unfurnished, nine rooms, three washrooms, four or five bedrooms, two kitchens; all appliances; fireplace; garage; rental \$500 month. Call 921-2452.

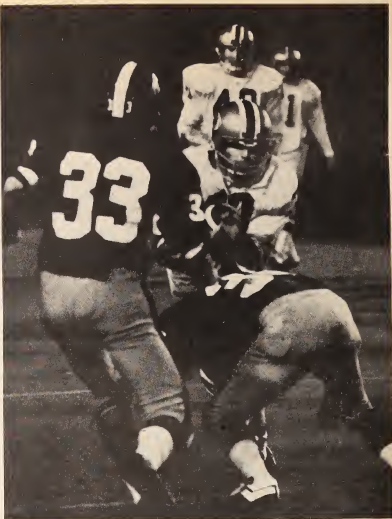
Spacious furnished house for rent in Agincourt, half an hour by car to St. George Campus; four-bedroom backsplit, three baths, one en suite, large family room with fireplace; modern kitchen including dishwasher, stove, frig/freezer; main floor laundry with washer and dryer; large fenced garden, quiet residential neighbourhood, close to school, parks, TTC, shopping centres, etc.; available from Jan. 1 to end of June. \$575 a month. 291-2949.

Elegantly furnished three-bedroom executive home located in prestige area, five minutes walking distance to York Mills subway; available from Jan. 1 to March 31, 1975, at \$450 per month. Call 223-7807.

Conservatory to Lahr

The Royal Conservatory of Music, at the invitation of the Department of National Defence, is about to establish its first overseas branch on the Armed Forces Base in Lahr, West Germany.

Miss Patricia Lemoine, a member of both the Conservatory faculty and Board of Examiners, is leaving to supervise this project, which involves the instruction of students from all parts of Canada now living in the West German locality.



THE NEARLY PACKED CNE stadium for the College Bowl game showed that collegiate football squads can draw fans in considerably larger numbers than some professional teams. The 26,450 (only 300 short of the intercollegiate game record) saw Varsity Blues lose to the Canadian champions 19-15 to Western Mustangs. Above, Rick Jeysman (33), Blues' defensive halfback, watches teammate Richard Nakatsu tackle Western's Richard Scarborough. (This photo, and last week's front page picture, courtesy of The Varsity.)

Weekend intercollegiate games

Friday, November 29

Men's hockey: Toronto vs Western - Arena, 8 p.m.

Women's basketball: Toronto vs Ottawa - Benson Bldg., 7.30 p.m.

Saturday, November 30

Women's basketball: Toronto vs Carleton - Benson Bldg., 11 a.m.

Water polo: OUAA championship at Ottawa.

WUSC plans special week

The World University Service of Canada (WUSC), an international organization of university students and faculty, is sponsoring an International Craft Sale and Film Festival as part of its program for Third World Week at U of T, during the week of Dec. 1 - 6, at the International Student Centre, 33 St. George St.

Handicrafts will be on sale from 12 noon to 9 p.m. each day, Monday, Dec. 2 to Friday, Dec. 6, in the Pendarves Room. The selection of over 200 different items includes baubles from Kenya, carvings from Honduras, ponchos from Bolivia, and rugs from Peru. All the material for sale was made in co-operatives, profit sharing handicraft centres and other projects designed to benefit the workers themselves. The sale provides a market for the products of

craftsmen from developing countries and raises funds for WUSC projects overseas and in Canada. A Festival of Films about and from developing areas will be shown in the Cumberland Room Sunday, Dec. 1, and Tuesday Dec. 3 to Friday Dec. 6 at 7.30 p.m. Admission is \$1 each night.

The following films will be shown: Dec. 1 "Revolution Until Victory", Palestine; "A Problem of Power", Colombia. Dec. 3 "Days and Nights in the Forest", India; "Helen, Queen of the Naught Girls", India. Dec. 4 "Emite", Senegal; "Jalan, Jalan", Indonesia. Dec. 5 "Dream on Monkey Mountain", Trinidad; "Tauw", Senegal. Dec. 6 "Cree Hunters of the Mistassini", Canada; "Labrador North", Canada; "Ballad of Crofoot", Canada; "Greenlanders", Canada.

EXHIBITIONS

Exhibition to mark the centenary of the birth of Dr. C.B. Farrar, including artefacts and relics displayed to the public for the first time, and a special audio-visual presentation. Farrar Library, Clarke Institute, corner

College and Huron Sts. 11 a.m. - 3 p.m., Dec. 2-6.

Earla Alexandra - exhibition of large paintings dealing with the subject of colour explorations. Main Foyer, Preliminary Building, Brindale College, Dec. 9-31.

Show and sell crafts at Hart House

There will be a Craft Exhibition (Show or Sell) open to the University community, in the Hart House Art Gallery from 11 a.m. to 2 p.m. each day, Wednesday, Dec. 11 to Wednesday, Dec. 18, sponsored by the Hart House Craft Club.

All craftsmen are encouraged by the club to submit entries, however modest. Entry forms are available from the program office at Hart House, and articles for the exhibition should be taken to the business office between 9 a.m. and 5 p.m. on Dec. 9 and 10.



THE ORFORD STRING QUARTET, in residence at the Faculty of Music, has won first prize of \$7,000 in the European Broadcasting Union International Competition. Quartets from many countries were sponsored by their national radio networks, the Orfords by the CBC. The finals were held in Stockholm on Nov. 17. Left, front, is Andrew Daves, with Kenneth Perkins behind. Terence Helmer is at right, and Marcel St. Cyr is celloist.